UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,151	01/25/2002	Yihan Liu	DC4978	9548

7590 07/13/2004

Dow Corning Corporation
Intellectual Property Department
P.O. Box 994
Midland, MI 48686-0994

EXAMINER	
JIANG, SHAOJIA A	
ART UNIT	**PAPER NUMBER**
1617	

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/055,151	LIU ET AL.	
	Examiner	Art Unit	
	Shaojia A Jiang	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9,10 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-10 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is a response to Applicant's amendment and response filed on April 26, 2004 wherein claims 9-10 and 12 have been amended since claim 9 has been amended. Claims 1-8 and 11 have been cancelled previously.

Currently, claims 9-10 and 12 are pending in this application.

Claims 9-10 and 12 as amended now are examined on the merits herein.

Applicant's amendment filed April 26, 2004 with respect to the rejection of claims 9-10, and 12 made under 35 U.S.C. 112 second paragraph for the use of the indefinite recitations, i.e., "a silicon atom containing monomer" and "a polymerization catalyst" in claim 9 of record stated in the Office Action dated April 20, 2003 have been fully considered and found persuasive to remove the rejection since the recitation "a silicon atom containing monomer" has been removed and limited to cyclic siloxane and "a polymerization catalyst" has been limited to "an acid or base polymerization catalyst". Therefore, the said rejection is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halloran (EP 1031344) in view of Kasprzak (US 5,443,760) for reasons of record stated in the Office Action dated April 20, 2004.

Halloran discloses a method of making the instant silicone oil-in-water emulsion composition by emulsion polymerization by adding an emulsion polymerization catalyst such as a strong acid or a strong base ring-opening polymerization catalyst (see page 3 lines 11-35) comprising the particular instant steps for the making herein (see also abstract, page 3 lines 1-5) such as comprising (i) preparing an aqueous phase containing water, non-ionic surfactant, and optionally one or more organic surfactants; (ii) preparing an oil phase comprising a silicon atom containing monomer polymerizable such as a cyclic siloxane monomer (see page 3 lines 40-54) to a silicone oil; (iii) combining the aqueous phase and the oil phase, (iv) adding a polymerization catalyst; (v) heating and agitating the combined phases for a time sufficient to allow the silicon atom containing monomer to polymerize to a silicone by the opening of the ring of a cyclic siloxane monomer; (vi) recovering a silicone oil-in-water emulsion containing the silicone oil; and (vii) combining the silicone oil-in-water emulsion with a salt component, a solvent component, or a combination thereof (see page 4 line 51-pag 5 line 6; claims 1-4).

Halloran does not expressly disclose the employment of the particular non-ionic surfactant such as a silicone polyether surfactant in the method herein.

Kasprzak discloses a method of making the instant silicone oil-in-water emulsion composition comprising the particular similar steps for the making herein and the

particular components employed in the method such as of the particular non-ionic surfactant such as a silicone polyether surfactant (see abstract, col.2-4, and claims 1-8). Kasprzak also discloses the employment of the instant particular components such as the salt, i.e., sodium chloride, aluminum chloride, or ammonium chloride (see col.6 lines 40-45); a lower alkyl alcohol, i.e., ethanol and isopropanol, or a solvent herein such as propyl and octyl esters, fatty alcohols (see col.4 lines 64-68).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the particular non-ionic surfactant such as a silicone polyether surfactant in the method herein.

One having ordinary skill in the art at the time the invention was made would have been motivated to employ the particular non-ionic surfactant such as a silicone polyether surfactant in the method herein since the same method of making the instant silicone oil-in-water emulsion of Halloran comprising the same method steps using non-ionic surfactant broadly is known in the art according to Halloran. The particular non-ionic surfactant such as a silicone polyether surfactant employed in the similar method of Kasprzak such as of Kasprzak is also known. Thus, a silicone polyether surfactant is a known art-recognized non-ionic surfactant and is also known water soluble. Therefore, one of ordinary skill in the art would have reasonably expected that a known art-recognized non-ionic surfactant, a silicone polyether surfactant, would have the same or substantially similar usefulness as a non-ionic surfactant in the same method of making the instant silicone oil-in-water emulsion of Halloran.

Response to Argument

Applicant's arguments filed April 26, 2004 with respect to this rejection made under 35 U.S.C. 103(a) of record in the previous Office Action April 20, 2004 have been fully considered but are not deemed persuasive as to the nonobviousness of the claimed invention over the prior art as further discussed below.

Applicant argues that "Claim 9 calls for the presence of a silicone polyether surfactant whereas Halloran in EP 1031344 in Paragraph [0031] specifies that the surfactant should be a non-silicon atom containing emulsifier" and that "Since Halloran expressly teaches against the use of emulsifier containing silicon atoms, it is not seen wherein one skilled in the art would seek or be motivated to add silicone polyether surfactant in Kasprzak US 5,443,760 to the method in Halloran. Applicant's argument is not persuasive since in the step (i) of Halloran, a siloxane broadly, including those disclosed at page 4 [0030], whose structures are similar to silicone polyether, has been added, combined, and mixed with water and a non-ionic surfactant to form a two-phase mixture therein (see page 3 lines 15-16). Thus, instead of adding again the same silicone compound which has already been added and present in the mixture, Halloran prefers that a non-ionic surfactant should be a non-silicon atom containing compound in paragraph [0031]. Thus, by reviewing the context of Halloran's disclosure, one of ordinary skill in the art would understand that Halloran specifically teaches that a non-ionic surfactant should be a non-silicon atom containing compound, but not against any silicon atom containing emulsifier in his invention.

Applicant's Examples I-V of the specification at pages 11-15 herein have been fully considered but are not deemed persuasive as to the nonobviousness and/or unexpected results of the claimed invention over the prior art. Examples I-V provide no clear and convincing evidence of nonobviousness or unexpected results over the cited prior art since there is no comparison to the same present. Applicant has the burden to explain the experimental evidence. See *In re Borkowski and Van Venrooy* 184 USPQ 29 (CCPA 1974).

Applicant is suggested to file or submit unexpected results of the claimed invention under 37 CFR 1.132 by providing side-by-side comparison with the closest prior art in support of nonobviousness for the instant claimed invention over the prior art.

Therefore, motivation provided by the combined teachings of the prior art herein to make the present invention is seen. The claimed invention is obvious in view of the prior art.

For the above stated reasons, said claims are properly rejected under 35 U.S.C. 103(a). Therefore, said rejection is adhered to.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gee et al. (US 5,891,954) for reasons of record stated in the Office Action dated April 20, 2004.

Gee et al. discloses a method of making the instant silicone oil-in-water emulsion by emulsion polymerization comprising the particular instant steps for the making herein, in particular adding the blend of the silicone polyether and the organopolysiloxane containing emulsion to aqueous phase to form the emulsion and the particular components employed in the method (see abstract, col.2-4, and claims 1-17). Gee et al. also discloses the employment of the instant particular components such as the salt, i.e., ammonium chloride (see col.6 lines 23-30); a lower alkyl alcohol, i.e., ethanol (see Example XIV at col.10 lines 19-20), or a solvent herein such as fatty alcohols, ethers or aromatic compounds (see col.4 lines 58 to col.6 line 58).

Gee et al. does not expressly disclose the specific order and sequence of the method steps wherein a silicone polyether surfactant is added to the silicone oil-in-water emulsion.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to add a silicone polyether surfactant to the silicone oil-in-water emulsion.

One having ordinary skill in the art at the time the invention was made would have been motivated to add a silicone polyether surfactant to the silicone oil-in-water emulsion since the specific order and sequence of this particular step is not seen critical to the same method of making the instant silicone oil-in-water emulsion of Gee et al.

because one of ordinary skill in the art would recognize that a silicone polyether is known to water soluble and thus soluble in the silicone oil-in-water emulsion. Moreover, a silicone polyether is stable and does not participate any reaction during emulsion polymerization of a cyclic siloxane monomer. Hence, adding before or after the emulsion polymerization would not be critical to making silicone oil-in-water emulsion. Thus, the specific order and sequence of this particular step is seen to be not critical and indifferent to the same method of making the instant silicone oil-in-water emulsion of Gee et al.

Response to Argument

Applicant's arguments filed April 26, 2004 with respect to this rejection made under 35 U.S.C. 103(a) of record in the previous Office Action April 20, 2004 have been fully considered but are not deemed persuasive as to the nonobviousness of the claimed invention over the prior art as further discussed below.

Again, Applicant argues that the silicone polyester in Gee et al. (US 5,891,954) is post added to the silicone oil-in-water emulsion. Note that the examiner already clearly states in the previous Office Action April 20, 2004 that "Gee et al. does not expressly disclose the specific order and sequence of the method steps wherein a silicone polyether surfactant is added to the silicone oil-in-water emulsion". As indicated in the previous Office Action, the specific order and sequence of this particular step is not seen critical to the same method of making the instant silicone oil-in-water emulsion of Gee et al. because one of ordinary skill in the art would recognize that a silicone

polyether is known to water soluble and thus soluble in the silicone oil-in-water emulsion.

Moreover, a silicone polyether is stable and does not participate any reaction during emulsion polymerization of a cyclic siloxane monomer. Hence, adding before or after the emulsion polymerization would not be critical to making silicone oil-in-water emulsion. Thus, the specific order and sequence of this particular step is seen to be not critical and indifferent to the same method of making the instant silicone oil-in-water emulsion of Gee et al.

Applicant's Examples I-V of the specification at pages 11-15 herein have been fully considered but are not deemed persuasive as to the nonobviousness and/or unexpected results of the claimed invention over the prior art. Examples I-V provide no clear and convincing evidence of nonobviousness or unexpected results over the cited prior art since there is no comparison to the same present. Applicant has the burden to explain the experimental evidence. See *In re Borkowski and Van Venrooy* 184 USPQ 29 (CCPA 1974).

Applicant is suggested to file or submit unexpected results of the claimed invention under 37 CFR 1.132 by showing that the specific order and sequence of this particular step herein is critical and essential to the method of making the instant silicone oil-in-water emulsion.

Therefore, motivation provided by the combined teachings of the prior art herein to make the present invention is seen. The claimed invention is obvious in view of the prior art.

For the above stated reasons, said claims are properly rejected under 35 U.S.C. 103(a). Therefore, said rejection is adhered to.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 9-10 and 12 as amended now are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 5,891,954 for reasons of record stated in the Office Action dated April 20, 2004.

Although the conflicting claims are not identical, they are not patentably distinct from each other for the same reasons as discussed in the 103(a) rejection above.

Claims 9-10 and 12 as amended now are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12

of U.S. Patent No. 6,071,975 (the same invention of Halloran in EP 1031344) for reasons of record stated in the Office Action dated April 20, 2004.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent is drawn to the same method of making silicone oil-in-water emulsion comprising substantially similar steps to the instantly claimed but different in the specific order and sequence of the method steps. Hence these methods between in the patent and in the instant application are seen to substantially overlap.

Thus, the instant claims 9-10 and 12 are seen to be obvious over the claims 1-12 of U.S. Patent No. 6,071,975.

Applicant's remarks filed April 26, 2004 with respect to these obviousness-type double patenting rejection of record in the previous Office Action have been fully considered but are not deemed persuasive. These remarks are believed to be adequately addressed by the obvious rejections presented above.

In view of the rejections to the pending claims set forth above, no claims are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Jiang, whose telephone number is (571)272-0627. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, Ph.D., can be reached on (571)272-0629. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9307.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Anna Jiang, Ph.D.
Patent Examiner, AU 1617
July 6, 2004

SHAOJIA ANNA JIANG
PATENT EXAMINER